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# Fertilizing Garden Tomatoes

Cooperative Extension, South Dakota State University

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Cooperative Extension Service

SOUTH DAKOTA STATE COLLEGE

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# Fertilizing Garden Tomatoes

Tomato plants consume large amounts of nutrient elements in the soil. Many home gardens are naturally low in one or more of the essential nutrient elements.

When you plant tomatoes, it is important that you start with the proper nutrient level. A soil test is the only reliable method to determine what nutrient levels actually are in your soil at any given time. See your county agent if you need help in the proper method of taking a soil sample for a soil test or where to get it analyzed.

## APPLY RIGHT FERTILIZER AT RIGHT TIME

Commercial fertilizer is the main source of nutrients applied to the soil for tomato production, although animal manure may be applied at the rate of 2 bushels packed (or 60 pounds) per 100 square feet before plowing. Since animal manure is low in phosphorus, apply 1½ pounds of superphosphate per bushel of manure at the same time.

Experiments have shown that early applications of quickly available superphosphate result in early and increased yield. Too much nitrogen in the soil early in the season will delay the setting and ripening of the fruits. In many cases the vines will be real vigorous, healthy, and dark green but produce very little fruit. Remember that soil for transplanting tomatoes should not be very rich in nitrogen early in the season.

Note the chart on page 2.

**Proper fertilization results in early fruiting, high yield, and better quality fruit.**

By **Paul Prashar,** Assistant Professor of Horticulture and **Dean Martin,** Extension Horticulturist

## CONSIDER THESE SUGGESTIONS

For a heavy and early yield of tomatoes, follow these suggestions:

1. Start with a desirable soil nutrient level. Do not apply excessive amounts of nitrogen fertilizer. If phosphorus or potash is needed for the crop, apply before planting.

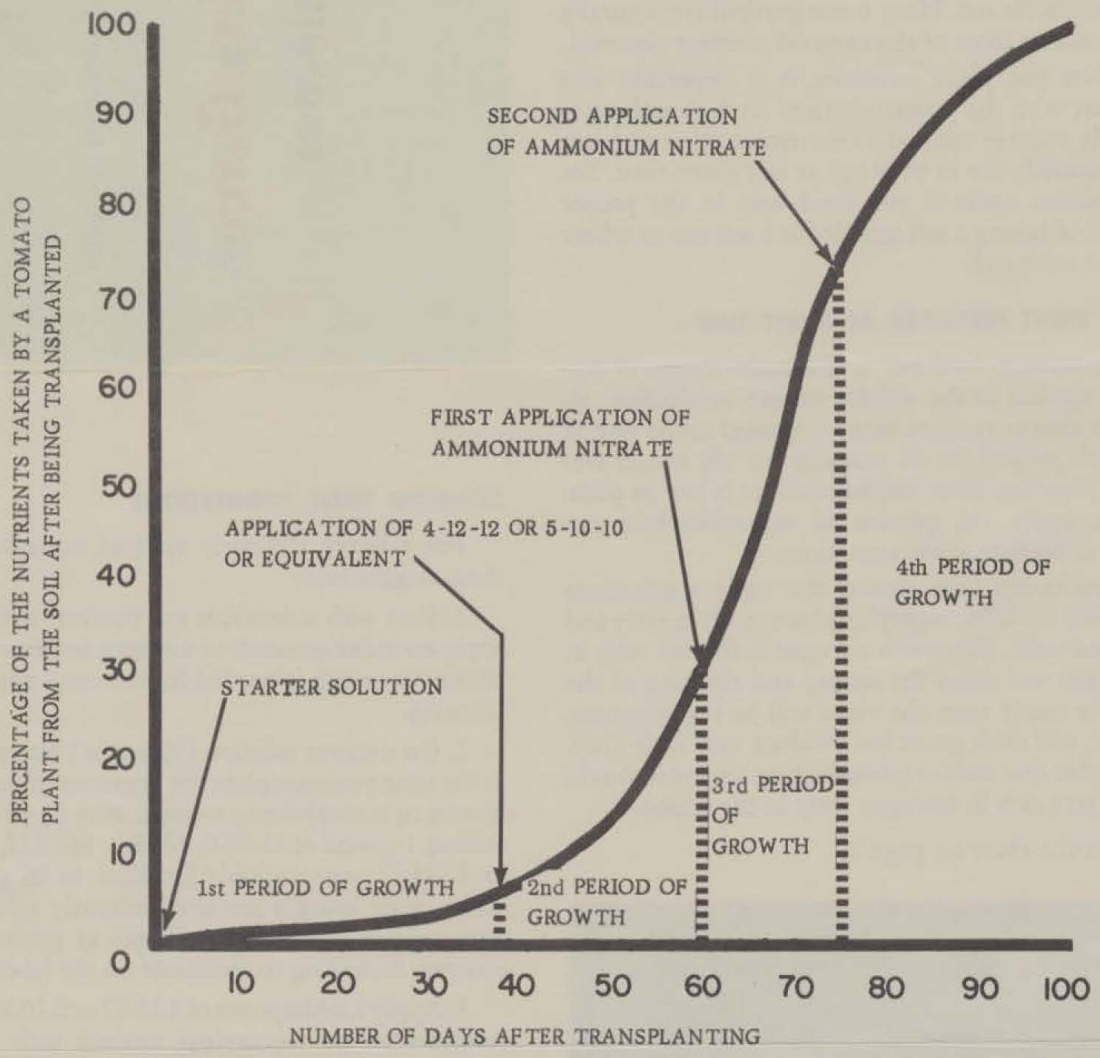
2. Use a starter solution (½pint to 1 pint per plant) at the time you transplant the tomatoes in the garden. Starter or transplanting solution may be prepared by adding 1 pound of 11-48-0, 13-39-0, 10-52-17, 15-30-15, or 12-24-12 water soluble fertilizer to 16 gallons of water or by using a prepared instantly soluble fertilizer available in small packages at garden supply counters according to directions on the label.

3. Apply 2 tablespoons of 4-12-12 or 5-10-10 analysis fertilizer or the equivalent around each plant (9 inches away from the stem) when the first cluster of fruits is the size of a golf ball.

4. Apply 1 tablespoon of ammonium nitrate around each plant when the first fruit starts turning pink, or 3-5 days before the first picking.

5.Repeat step four after 10-14 days for better fruit size and longer-bearing season of tomatoes. The nitrogen requirement of a tomato plant increases greatly when fruit starts ripening. That is why it is important to follow steps 4 and 5.

If a mulch is used under tomato plants, it is advisable to apply 1 tablespoon of ammonium nitrate around each plant before you apply the mulch. This added nitrogen is required for the decomposition process of the mulch.




Percentage of Plant Food Taken from the Soil by a Tomato Plant and the Time of Fertilizer Application

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